

Serial No. 10/729,878
Wakefield, et al.
Filed December 5, 2003

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Response to Office Action
Examiner: Phuong Thao Cao
Group Art Unit: 2164

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTORS: Todd D. Wakefield and David L. Bean
TITLE: Production of Role-Related Information
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EXAMINER NAME: Phuong Thao Cao
GROUP ART UNIT: 2164

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Amendment and Claims Listing

Please amend the claims as follows:

Claim 1 (currently amended) 1. A computer program product located to one or more storage media devices usable to produce structured data from unstructured free text, said computer program product comprising instructions executable by a computer to perform the functions of:

accessing a source of data records that contain structured and unstructured data, the unstructured data including free text, and the unstructured data of a particular record containing information related to the structured data in that record;

~~identifying text records within the free text;~~ linguistically parsing the free text
~~identified text records;~~

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extracting multi-dimensional relational facts from the parsed free text, the multi-dimensional relational facts relating to the structured data of the data record from which the free text was taken, and the multi-dimensional relational facts including a plurality of attributes;

said extracting step including identifying roles within the parsed text records, ~~said identifying producing attribute extractions, each of said attribute extractions containing role information of the derived source text;~~

applying caseframes to the ~~attribute extractions~~, said applying caseframes producing a filtered set of attribute extractions; and

producing a structured data element containing the filtered set of extractions.

Claim 2 (original) 2. A computer program product according to claim 1, wherein said instructions are further executable to perform the function of identifying domains of the filtered set of attribute extractions.

Claim 3 (original) 3. A computer program product according to claim 2, wherein said instructions are further executable to perform the function of the assignment of domain roles.

Claim 4 (original) 4. A computer program product according to claim 3, wherein said instructions are further executable to perform the function of producing relation types.

Claim 5 (original) 5. A computer program product according to claim 4, wherein said instructions are further executable to perform the function of coalescing the produced relation types.

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Claim 6 (currently amended) 6. A computer program product according to claim 1, wherein said instructions are further executable to perform the function of integrating said relational facts to the structured data of the data record to which they relate and creating a new database containing the integrated data ~~structured data element~~ ~~produced in said producing~~.

Claim 7 (original) 7. A computer program product according to claim 1, wherein the instructions are further executable to produce a new relational database containing the structured data element produced in said producing a structured data element.

Claim 8 (original) 8. A computer program product according to claim 1, wherein said instructions are further executable to perform the function of producing a file containing the structured data element produced in said producing a structured data element.

Claim 9 (original) 9. A computer program product according to claim 5, wherein the instructions are further executable to produce a file having a format containing the structured data element selected from the group of XML, character separated values, spreadsheet formats and file-based database structures.

Claim 10 (original) 10. A computer system including a computer program product according to claim 1, further comprising: a processing unit coupled to said one or more storage media devices, said processing unit being capable of executing said instructions; and an execution command unit, whereby operation of said instructions and said processing unit may be commanded or controlled.

Claim 11 (original) 11. A computer program product according to claim 1, wherein

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the structured data element produced by the performance of said producing includes reference information to the original free text for construed data.

Claim 12 (original) 12. A computer program product according to claim 1, wherein the instructions are further executable to construct a library containing extracted attributes.

Claim 13 (original) 13. A computer program product according to claim 1, wherein the instructions are further executable to construct a library containing extracted relational facts.

Claim 14 (original) 14. A computer program product according to claim 1, wherein said instructions are further executable to perform the function of combining like relation types.

Claim 15 (original) 15. A computer program product according to claim 1, wherein said instructions are further executable to perform the function of combining like attributes.

Claim 16 (original) 16. A computer program product according to claim 1, wherein said instructions are further executable to perform the function of coalescing the identified attributes.

Claim 17 (original) 17. A computer program product according to claim 1, wherein said instructions are further executable to perform the function of coalescing identified relational facts.

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Claim 18 (original) 18. A method for producing structured data from unstructured free text, comprising the steps of:

accessing a source of unstructured data, the unstructured data including free text;
identifying text records within the free text; parsing the identified text records;
identifying roles within the parsed text records, said identifying producing attribute extractions, each of said attribute extractions containing role information of the derived source text;
applying caseframes to the attribute extractions, said applying caseframes producing a filtered set of attribute extractions; and producing a structured data element containing the filtered set of extractions.

Claim 19 (original) 19. A method according to claim 18, further comprising the step of identifying domains of the filtered set of attribute extractions.

Claim 20 (original) 20. A method according to claim 19, further comprising the step of assigning domain roles.

Claim 21 (original) 21. A method according to claim 20, further comprising the step of producing relation types.

Claim 22 (original) 22. A method according to claim 18, further comprising the step of creating a new database containing the structured data element produced in said producing.

Claim 23 (original) 23. A method according to claim 18, further comprising the step

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of producing a new relational database containing the structured data element produced in said producing a structured data element.

Claim 24 (original) 24. A method according to claim 18, further comprising the step of producing a file containing the structured data element produced in said producing a structured data element.

Claim 25 (original) 25. A method according to claim 24, a file is produced having a format containing the structured data element selected from the group of XML, character separated values, spreadsheet formats and file-based database structures.

Claim 26 (original) 26. A method according to claim 18, wherein the structured data element produced by the performance of said producing includes reference information to the original free text for construed data.

Claim 27 (original) 27. A method according to claim 18, further comprising the step of constructing a library containing extracted attributes.

Claim 28 (original) 28. A method according to claim 18, further comprising the step of constructing a library containing extracted relational facts.

Claim 29 (original) 29. A method according to claim 18, further comprising the step of combining like relation types.

Claim 30 (original) 30. A method according to claim 18, further comprising the step of combining like attributes.

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Claim 31 (original) 31. A method according to claim 18, further comprising the step of coalescing the identified attributes.

Claim 32 (original) 32. A method according to claim 18, further comprising the step of coalescing identified relation types.

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Respectfully submitted this 12th day of December, 2006.



Daniel P. McCarthy
Reg. No. 36,600
P.O. Box 71550
Salt Lake City, UT 84171-0550
Tel 801 661 8998
Fax 435 615 9669
Email: dmccart@xmission.com